

ART. XI.—*Note on the Distribution of Victorian Batrachians, with Descriptions of Two New Species.*

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The Batrachians recorded from Victoria by Mr. G. A. Boulenger, in his British Museum catalogue of the Batrachia Salientia, published in 1882, are six in number, viz. :—

Limnodynastes tasmaniensis, Steindachner. Sandhurst.

Heleioporus pictus, Peters. Sandhurst.

Pseudophryne bibronii, Steind. Sandhurst.

Hyla ewingii, Dum. et Bibr. Melbourne.

H. parvidens, Peters. Port Phillip.

H. aurea, Lesson. Melbourne.

Sir Frederick McCoy, in his "Prodromus of Victorian Zoology," has fully illustrated three species, viz. :—

Limnodynastes tasmaniensis, Steind. Passim.

L. dorsalis, Gray. Sandy tracts about Brighton.

Hyla aurea, Lesson. Passim.

L. dorsalis was first recorded from Victoria by Sir Frederick McCoy.

In 1888, Mr. Boulenger described* a new species of frog sent to him by Mr. J. J. Fletcher, of Sydney. The single

* A.M.N.H., Vol. II (Sixth Series), p. 136.

specimen was from Warragul, and was named by Mr. Boulenger *Crinia victoriana*.

Lastly, about a year ago, Mr. J. J. Fletcher* mentions the occurrence of *Limnodynastes peronii*, Dum. et Bibr., also at Warragul.

In all then, up to the present, nine species of Batrachians are known from Victoria. Mr. Fletcher (*l.c.*), in alluding to this limited number, remarks, "The falling off in the number of species in the southern colonies is possibly, and very probably, in some degree rather apparent than real." This remark, as will be seen, has been fully justified. The researches of Krefft, and later on, those of Fletcher, have swelled the list of known New South Wales Batrachians to thirty-four. While we cannot expect to meet with so large a number in Victoria, it was improbable that there should be so great a difference in the size of the lists of species found in the two colonies.

I am now able to extend the number of Victorian Batrachians to sixteen. During our expedition last summer to the Upper Wellington, Dr. Dendy captured a beautiful specimen, which he handed over to me to determine. It proves to be a new species of *Pseudophryne*, and is described later on in this paper. This discovery led me to examine all the members of the order to which I could gain access. Professor Sir Frederick McCoy has shown me every consideration, and afforded me all facilities for examining the specimens which are preserved in the National Museum. Besides collections from various parts of Victoria of named and unnamed varieties, I had thus the advantage of handling a series of New South Wales forms received from Sydney. Professor Spencer and Dr. Dendy have placed all their specimens at my disposal. Several correspondents have kindly assisted me by forwarding living specimens from their respective districts. I have especially to thank the Rev. Henry Howard and W. B. Harvey, Esq., of Warragul; D. Clark, Esq., of Bairnsdale; and J. B. Lillie Mackay, Esq., of Sandhurst, for help of this kind. Mr. Charles Frost, in conjunction with whom I hope to prepare a monograph of this group for the Society, has obtained specimens from Gisborne, Macedon, Parwan, &c. I have, of course, also collected specimens myself wherever opportunity has presented.

* P.L.S., N.S.W., Vol. V (Second Series), October 29, 1890.

Our Victorian Batrachians then include :—

CYSTIGNATHIDÆ.

Limnodynastes peronii, D. & B. Melbourne, Warragul, Bairnsdale.

L. tasmaniensis, Steind. Melbourne, Heidelberg, Carrum, Bairnsdale, Western District, Maryborough, Sandhurst.

L. dorsalis, Gray. Sandy tract from Prahran to Mordialloc.

Crinia signifera, Girard. Western District, Grampians, Melbourne, Heidelberg, Carrum, Waterloo in Gippsland.

C. victoriana, Boulenger. Warragul.

C. sp., Gunther. Oakleigh, Macedon, Christmas Hills, Narre Warren and Loch, Gippsland.

Heleioporus albopunctatus, Gray. Parwan, foot of Mount Macedon, Waterloo.

H. pictus, Peters. Sandhurst, Parwan (near Bacchus Marsh).

BUFONIDÆ.

Pseudophryne bibronii, Steind. Grampians, Sandhurst, Macedon, Gisborne.

P. dendyi, n. sp. Upper Wellington River, North Gippsland.

P. semi-marmorata, n. sp. Oakleigh, Heidelberg, Ringwood, Narre Warren, Waterloo, Grampians.

HYLIDÆ.

Hyla peronii, Tschudi. Gunbower (near Murray River).

H. ewingii, D. and B. Brighton, Ringwood, Waterloo, Trafalgar, Warragul, Bairnsdale.

H. parvidens, Peters. Port Phillip (B.M. Cat.)

H. aurea, Lesson. All parts of the colony.

H. lesueurii, D. and B. M'Allister and Wellington Rivers.

I have examined specimens of all of these sixteen species, except of *Hyla parvidens* and of *Crinia victoriana*. It seems almost certain that this list will be further supplemented by the addition of species from the Murray, especially from the Gunbower lagoons, from the Western District and Mallee, and from East Croajingolong, while it is by no means improbable

that some other kinds will be found nearer to the metropolis. Mr. Frost and I hope to be able to give some account of these in our monograph.

PSEUDOPHYRYNE DENDYI, sp. nov.

General shape and characters those of the genus.

Hind limb being carried forwards along the body, the tip of the longest toe reaches beyond the eye; the tibio-tarsal articulation does not reach the shoulder.

Skin slightly granular on the back, smooth below; small lateral folds.

Small inner and outer white metacarpal tubercles, subequal. Inner and outer white metatarsal tubercles; inner elliptical as long as first toe, outer rounded about half size of inner.

No glands present on the loins or thighs.

Dimensions.—From tip of snout to vent, 15 mm.; length of fore-limb from axilla to tip of third finger, 8 mm.; length of hind limb from vent to tip of fourth toe, 12 mm.

Colours of Life.—Dorsal.—Head and trunk quite black, with many scattered small white dots, most numerous on the head and sides. The dots are aggregated, to form a superciliary white line over, and small white patches behind and below, each eye. A short median longitudinal yellow streak on the snout, from between the nares nearly to the mouth. On the rump, a yellow median longitudinal band, with a yellow blotch on each side behind (on back of thighs), forming an inverted T above the cloaca. Ventral.—Throat and belly quite black, marbled with irregular white blotches. Both black and white are dense opaque colours, clearly defined. With a lens, tiny black dots can be seen all over the white areas, and lighter dots all over the black ground. Fore limbs.—Black, with small white spots. The dorsal and post-axial surface of the arm (humerus) covered by a canary yellow patch of colour. Dorsal surface of hand white; fingers with white transverse bands, tips black. Hind limbs.—The surfaces of the limb seen from above, and the under side of the foot, are like the back, coloured black with small white dots. The surfaces of the limb, seen from below, and the back of the foot, are like the belly, black, largely marbled with white. Toes with white transverse bands and black tips.

A single male specimen, found by Dr. Dendy on our visit to Wellington River, North Gippsland. It was met with while we were turning over logs in search of Planarian worms, on one of the river flats, which gave evidence of being largely flooded in winter time.

PSEUDOPHRYNE SEMI-MARMORATA, sp. nov.

General form and characters those of genus.

Hind limb being carried forwards along the body, the tip of the longest toe reaches beyond the end of the snout. The tibio-tarsal articulation reaches to the shoulder.

Skin of top of head and back with several more or less distinct longitudinal linear series of rather conspicuous warts. Sides and belly smooth. Under surface of thighs near the symphysis granular.

Two small metacarpal tubercles, the outer rather larger. Two small metatarsal tubercles, subequal.

An oval orange-coloured gland on back of each thigh.

Dimensions of large specimen.—From tip of snout to vent, 31 mm.; length of fore-limb from axilla to tip of third finger, 13 mm.; length of hind-limb from vent to tip of fourth toe, 31 mm.

Colours of Life.—Top of head and back and upper surfaces of limbs olive-green, with darker spots; tips of warts often lighter. Vertebral line usually absent; when present, reduced to faint yellow streak on tip of snout, and another over hinder part of urostyle. Sides, blue black; throat, under sides of limbs, pale greenish yellow, more exactly a light shade of "brown pink," greener near axilla. Palmar surface of hand and plantar surface of inner $3\frac{1}{2}$ toes, flesh-coloured. Belly light olive-green, marbled finely with white.

Met with in all the S.E. parts of the colony, south of the Divide.

Four species of Pseudophryne are recorded in Mr. Boulenger's Catalogue. All are confined to Australia. Mr. Boulenger suggests that two of the species, *P. bibronii* and *P. coriacea*, named by Steindachner and Keferstein respectively, may prove to be only varieties of the original *P. australis* of Gray. But Mr. Fletcher,* who has closely

* *Vide* Proceedings of the Linnean Society of New South Wales, Vol. IV (Second Series), p. 376.

studied both *P. australis* and *P. bibronii* in their native haunts, is quite convinced that they are good species, distinguished by constant differences in colour and pattern, in temperament, in habits, and in the time of the breeding season. *P. dendyi* is widely removed from all by its conspicuous black and white coloration. That *P. semi-marmorata* is also very constant in its colouring and the pattern of the warts on the dorsal surface, I have found after examining dozens of specimens. In its geographical distribution, it is our southern representative of *P. bibronii*, the two forms only overlapping in the Grampians. We have thus another instance of the distinctness of species on the two sides of the Great Dividing Range.